

## **Matched Filter Detection for Time Based Servo Signals in a Tape Drive**

### **ABSTRACT**

[00026] Disclosed are a system, a method, and article of manufacture to provide for filtering a servo signal in a tape drive using a matched filter that is optimized for the operating tape velocity of the tape drive. A servo controller for track following on a tape uses a digital filter implementation of the matched filter to produce a filtered servo signal. The digital filter is optimized for different tape velocities by selecting digital filter coefficients for the digital filter that depend upon the tape velocity presently in use. The filtered servo signal is used by the servo controller to provide improved track following in a tape drive.